

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	08/444,758	HARVEY ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	CHAN S. PARK	2625	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 7/8/02.
2. ☒ The allowed claim(s) is/are 31-33, 35-42 and 44-54. These claims will be renumbered as 1-22.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
  - \* Certified copies not received: \_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_.

**Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application  |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                              | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date <u>20101001</u> . |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date ____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment  |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material        | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance                         |
|   | 9. <input type="checkbox"/> Other ____.  |

/CHAN S PARK/  
Primary Examiner, Art Unit 2625

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in an interview with Thomas J. Scott (Reg. No. 27,836) & Carl Benson on October 1, 2010.

2. The application has been amended as follows:

1-30. (Cancelled)

31. (Currently amended) A method of communicating programming to subscribers in a network, said network including one or more programming origination stations, a plurality of intermediate transmission stations, and a plurality of subscriber stations, each intermediate transmission station receiving programming from one of said origination stations and retransmitting said received programming to at least one of said subscriber stations, each intermediate transmission station including ~~one or more memories~~ a plurality of storage locations and a switch operatively connected to said ~~one or more memories~~ plurality of storage locations, said method comprising the steps of:

storing at each of said plurality of intermediate transmission stations data of predetermined capacities;

transmitting, from at least one of said one or more programming origination stations, a plurality of units of audio or video programming to said plurality of intermediate transmission stations;

transmitting from said at least one of said one or more programming origination stations to said plurality of intermediate transmission stations data that identify said

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units of audio or video programming or a subject matter included in said units of audio or video programming;

processing said stored data of said predetermined capacities at each intermediate transmission station to identify one of said plurality of storage locations at which to store at least one of said plurality of units of audio or video programming, wherein said identified storage locations are different for each of said plurality of units of audio or video programming;

controlling said switch at each of said plurality of intermediate transmission stations to receive and store said units of audio or video programming ~~for at said identified one of plurality of storage locations in accordance with said step of processing stored data of said predetermined capacities;~~

processing said data that identify said units of audio or video programming or subject matter included in said units of audio or video programming at each intermediate transmission station to determine a period of time for which to store said units of audio or video programming;

controlling said switch at each intermediate transmission station to ~~communicate said received and stored~~ to transfer said at least one of said units of programming from said identified one of said plurality of storage locations to another of said plurality of storage locations in accordance with said step of processing said stored data of said predetermined capacities and said step processing said data that identify said units of audio or video programming or subject matter included in said units of audio or video programming; and

controlling said switch each of said plurality of intermediate transmission stations to transmit said received and stored units of audio or video programming to at least one of said subscriber station stations in accordance with said step of processing said data that identify said units of audio or video programming or subject matter included in said units of audio or video programming.

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32. (Currently amended) The method of claim 31, wherein ~~each switch~~ said switch at each of said plurality of intermediate transmission stations includes a plurality of inputs or a plurality of outputs and ~~said~~ further comprising the step of storing data of predetermined characteristics specify at each of said plurality of intermediate transmission stations, said data of predetermined characteristics specifying at least one source of input to or device that receives output from said switch.

33. (Currently amended) The method of claim ~~34~~ 32, further comprising the step of programming a computer to control at least one intermediate transmission station according to said stored predetermined characteristics.

34. (Cancelled)

35. (Currently amended) The method of claim 31, wherein each of said plurality of intermediate transmission stations transmits said units of audio or video programming to a subscriber in a broadcast or cablecast programming channel transmission, said method further comprising the steps of:

receiving from said one or more programming origination stations a signal including some other units of programming of said broadcast or cablecast programming channel transmission; and

controlling each switch at said plurality of intermediate transmission stations to communicate said other units of programming from a receiver to a transmitter.

36. (Currently amended) The method of claim 35, further comprising the steps of:

communicating a schedule to at least one controller; and

controlling at least one intermediate transmission station to communicate said units of programming according to said schedule.

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37. (Previously presented) The method of claim 31, wherein said switch at each of said plurality of intermediate transmission stations comprises one or more of a digital switch and a matrix switch.

38. (Currently amended) A method of communicating programming to subscribers in a network, said network including one or more programming origination stations, a plurality of intermediate transmission stations, and a plurality of subscriber stations, each intermediate transmission station receiving audio or video programming from said origination stations, each intermediate transmission stations including one or more selective communications devices and a plurality of storage locations, said method comprising the steps of:

(1) ~~receiving~~ passing a plurality of units of audio or video programming to a transmitter at said one or more programming origination stations;

(2) ~~receiving,~~ passing to said transmitter at said one or more programming origination stations, data identifying said units of audio or video programming or a subject matter included in said units of audio or video programming, said data effective to instruct ~~to~~:

(a) ~~effect~~ at least a first one of said plurality of intermediate transmission stations to ~~receive and store said programming for a period of time and to indicate when to retransmit~~ said plurality of units of audio or video programming to at least one of said plurality of subscriber stations, wherein ~~said one or more selective communications devices at said at least a first intermediate transmission station are controlled based on~~ data of one or more predetermined transmission station capacities is processed at said at least one of said plurality of intermediate transmission stations to identify one of said plurality of storage locations at which to store at least one said plurality of units of audio or video programming,

wherein said identified storage locations are different for each of said plurality of units of audio or video programming, and

wherein said stored at least one of said plurality of units of programming is transferred from said identified one of said plurality of storage locations to another of said plurality of storage locations based on said data identifying said units of audio or video programming or subject matter included in said units of audio or video programming and said data of one or more predetermined transmission station capacities; or

~~(b) — effect at least a second of said plurality of intermediate transmission stations to receive and store said programming for a period of time and retransmit said programming to at least one of said plurality of subscriber station, wherein said one or more selective communications devices at said at least a second of said plurality of intermediate transmission stations are controlled based on data of one or more predetermined transmission station capacities; and~~

~~(3) transmitting said plurality of units of audio or video programming and said data that identify said units of audio or video programming or a subject matter included in said units of audio or video programming to said plurality of intermediate transmission stations.~~

39. (Currently amended) The method of claim 38, wherein said one or more selective communications devices at said at least ~~a first~~ one of said plurality of intermediate transmission station stations comprise a switch ~~which~~ with a plurality of outputs and said predetermined transmission station capacities specify a plurality of ~~memories~~ storage devices and/or transmitters operatively connected to said plurality of outputs.

40. (Currently amended) The method of claim 38, wherein said one or more selective communications devices at said at least ~~a second~~ one of said plurality of intermediate transmission station stations comprise a switch ~~which~~ with a plurality of inputs and outputs and said predetermined ~~receiver~~ transmission station capacities specify a plurality of ~~memories~~ storage devices and/or receivers operatively connected to said plurality of inputs and outputs.

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41. (Currently amended) The method of claim 38, wherein said one or more selective communications devices at said at least one of said plurality of intermediate transmission stations comprise a plurality of storage locations, said method further comprising the step of embedding said data in a signal including said plurality of units of audio or video programming before transmitting said plurality of units of audio or video programming to said at least one of said plurality of intermediate transmission stations.

42. (Currently amended) The method of claim 38, wherein said data that identify said units of audio or video programming comprise a schedule, said method further comprising the step of transmitting at least some of said schedule to said at least a ~~second~~ one of said plurality of intermediate transmission stations before transmitting said plurality of units of audio or video programming.

43. (Cancelled)

44. (Currently amended) An intermediate transmission station, comprising:

~~one or more~~ a first receiver ~~means for receiving~~ that receives from one or more remote programming origination stations a plurality of units of audio or video programming and data that identify said units of audio or video programming or a subject matter included in said units of audio or video programming;

~~one or more~~ a first storage ~~means for storing~~ device that stores data of predetermined capacities;

~~one or more~~ a first switch ~~means~~ operatively connected to said ~~one or more~~ first receiver ~~means for communicating~~ that communicates said units of audio or video programming;

~~one or more~~ a plurality of second storage ~~means~~ devices operatively connected to at least one of said ~~one or more~~ first receiver ~~means~~ and said ~~one or more~~ first switch ~~means for storing~~ for storing said units of audio or video programming;

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~~one or more~~ a transmitter means operatively connected to at least one of said ~~one or more~~ first switch means and said ~~one or more~~ plurality of second storage means devices to transmit said plurality of units of audio or video programming to a subscriber station at a timing determined by processing said data that identify said units of audio or video programming or a subject matter included in said units of audio or video programming; and

~~one or more~~ a first control means for controlling controller that processes said ~~one or more~~ first switch means based on said data of one or more predetermined capacities to identify one of said plurality of second storage devices at which to store at least one of said units of audio or video programming, that controls said first switch to store said at least one of said units of audio or video programming at said identified one of said plurality of second storage devices in accordance with processing said data of one or more predetermined capacities, that processes said data that identify said units of audio or video programming or a subject matter included in said units of audio or video programming, that controls said first switch to transfer said stored at least one of said units of audio or video programming from said identified one of said plurality of second storage devices to another of said plurality of storage devices, and that controls said first switch to communicate said units of audio or video programming to said transmitter,

wherein said identified storage locations are different for each of said units of audio or video programming.

45. (Currently amended) The intermediate transmission station of claim 44, further comprising ~~one or more~~ a second receiver means operatively connected to said ~~one or more~~ first switch means for receiving that receives one or more broadcast or cablecast programming channels from said one or more remote programming origination stations.

46. (Currently amended) The intermediate transmission station of claim 45, further comprising ~~one or more~~ a second switch means operatively connected to



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said ~~one or more~~ second receiver ~~means for communicating said~~ that communicates additional units of audio or video programming received in said one or more broadcast or cablecast programming channels to said ~~one or more~~ first receiver means plurality of second storage devices.

47. (Currently amended) The intermediate transmission station of claim 45, further comprising ~~one or more~~ a first detector ~~means~~ operatively connected to at least one of said first receiver and said second receiver ~~means for detecting that detects~~ said data.

48. (Currently amended) The intermediate transmission station of claim 45, further comprising ~~one or more~~ a second detector ~~means~~ operatively connected to at least one of said first receiver and said second receiver ~~means for detecting that detects~~ predetermined automatic processing information.

49. (Currently amended) The intermediate transmission station of claim 44, wherein said ~~one or more~~ first switch ~~means are~~ is operatively connected to a first of said ~~one or more~~ second storage means device, said station further comprising:

~~one or more~~ a second switch ~~means~~ operatively connected to ~~at least a second of~~ said ~~one or more~~ plurality of second storage ~~means~~ devices; and

~~one or more~~ a second control means controller operatively connected to said ~~one or more~~ second switch ~~means for controlling that controls~~ said ~~one or more~~ second switch means to communicate said units of programming to at least one of said at ~~least a plurality of~~ second storage means devices.

50. (Currently amended) The intermediate transmission station of claim 49, further comprising ~~one or more~~ a third control means controller operatively connected to said ~~at least a~~ plurality of second storage ~~means for controlling devices that controls~~ said ~~at least a~~ plurality of second storage means devices to store or communicate said programming.

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51. (Currently amended) The intermediate transmission station of claim 50, further comprising ~~one or more~~ a detector means operatively connected to one or more of said first controller, said second controller, and said third ~~control means~~ for detecting controller that detects automatic processing information.

52. (Currently amended) A method of communicating audio or video programming to subscribers in a network, said network including one or more programming origination stations, a plurality of intermediate transmission stations, and a plurality of subscriber stations, each intermediate transmission station receiving a plurality of units of audio or video programming from one of said origination stations and retransmitting at least one of said received units of audio or video programming to at least one of said subscriber stations, each intermediate transmission station including a plurality of storage devices, said method comprising the steps of:

storing at each of said plurality of intermediate transmission stations predetermined intermediate transmission station capacities;

transmitting, from at least one of said one or more programming origination stations, predetermined intermediate transmission station automatic processing information to said plurality of intermediate transmitter stations;

transmitting, from said at least one of said one or more programming origination stations, a plurality of units of audio or video programming to said plurality of intermediate transmission stations;

transmitting from said at least one of said one or more programming origination stations to said plurality of intermediate transmission stations data that identify said units of audio or video programming or a subject matter included in said units of audio or video programming;

controlling each of said plurality of intermediate transmission stations to receive and store at least one of said plurality of units of audio or video programming for a period of time, wherein each of said plurality of intermediate transmission stations

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processes said predetermined intermediate transmission station capacities to identify one of said plurality of storage devices at which to store said at least one of said plurality of units of audio or video programming, wherein said identified storage devices are different for each of said units of audio or video programming;

controlling each of said plurality of intermediate transmission stations to transfer said at least one of said units of audio or video programming from said identified one of a plurality of storage devices to another of said plurality of storage devices, wherein each of said plurality of intermediate transmission stations processes said predetermined intermediate transmission station capacities and said data that identify said units of audio or video programming or subject matter included in said units of audio or video programming for transferring said at least one of said units of audio or video programming from said identified one of a plurality of storage devices to said another of said plurality of storage devices; and

controlling each of said plurality of intermediate transmission stations to transmit said received and stored at least one of said plurality of units of audio or video programming to at least one subscriber station based on processing; ~~wherein each of said plurality of intermediate transmission stations is controlled based on said predetermined intermediate transmission station capacities and said predetermined intermediate transmission station automatic processing information.~~

53. (Previously presented) The method of claim 52, wherein at least a portion of said predetermined intermediate transmission station capacities and said predetermined intermediate transmission station automatic processing information is processed according to a schedule, said method further comprising the step of transmitting a signal which operates at least one of said intermediate transmission stations to communicate said schedule to one of a computer and a memory.

54. (Previously presented) The method of claim 52, wherein at least a portion of said predetermined capacities applies to a programmable device and said

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predetermined intermediate transmission station automatic processing information comprise operating instructions which program said device.

55-100. (Cancelled)

## **ALLOWANCE**

### ***Allowable Subject Matter***

3. **Claims 31-33, 35-42 and 44-54** are allowed. These claims will be renumbered as 1-22.

4. The following is an examiner's statement of reasons for allowance:

The prior art of record do not teach or suggest the claim limitations of identifying storage location at which to store at least one of said plurality of units of audio or video programming by processing said stored data of said predetermined capacities, processing said data that identify said units of programming to determine a period of time for which to store said units of programming and transferring said at least one of said units of programming from said identified location to another location in accordance with stored data of said predetermined capacities and said data that identify said units of programming.

The features identified, in combination with other claim limitations, are neither suggested nor discussed by the prior art of record.

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Remarks***

6. A double patenting administrative requirement is not being required by the examiner in the instant application since the examiner has independently conducted a double patenting analysis of the claims in the instant application.

***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHAN S. PARK whose telephone number is (571)272-7409. The examiner can normally be reached on M-F 8am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached on (571) 272-7402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/CHAN S PARK/  
Primary Examiner, Art Unit 2625  
October 8, 2010